

**REMARKS/ARGUMENTS**

The Office Action mailed May 13, 2008, has been received and reviewed. Claims 1 through 19, 21, 23 through 35, and 42 through 47 are currently pending in the application. Claims 1 through 19, 21, 23 through 35, and 42 through 47 stand rejected. Applicants have amended claim 19 for clarity and canceled claims 29-35. Applicants respectfully request reconsideration of the application with respect to the amendment and analysis presented herein.

**35 U.S.C. § 101 Non-Statutory Subject Matter**

Claims 29 through 35 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 29-35 are canceled herein.

**35 U.S.C. § 112 Claim Rejections**

Claims 19, 21, and 23 through 28 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants respectfully traverse this rejection, as hereinafter set forth.

The Office Action states that “the at least one archival system” in claim 19, line 20 does not have sufficient antecedent basis. Applicants respectfully disagree. Claim 19, line 6 recites, “an at least one archival system.”

The Office Action also states, “the replicated data in claim 19, line 20 does not have sufficient antecedent basis. Applicants believe that the recitation at claim 19, lines 17 and 18 “all data elements at any of the two or more of the communication nodes are replicated across the dynamic connection” recite replicated data elements. However, in order to further prosecution, Applicants have amended claim 19 to recite, in part, “when the dynamic connection is active, all data elements at any of the two or more of the communication nodes are replicated across the dynamic connection to all of the two or more of the communication nodes to become replicated data elements.” With this amendment, the replicated data elements recited at line 20 have explicit antecedent basis.

Claims 42 through 47 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse this rejection, as hereinafter set forth.

The Examiner states that it is unclear what is meant by “the at least one intermediate node includes a plurality of intermediate nodes and the at least one initiating node includes a plurality of initiating nodes, which is recited in claim 44. Claim 44 depends from independent claim 42. Claim 42 recites “at least one intermediate node” and “at least one initiating node.” “At least one” means one or more. “A plurality” means two or more. Thus, in claim 42 there are one or more intermediate nodes and there are one or more initiating nodes. By reciting that at least one includes a plurality, claim 44 is limiting these elements to two or more, rather than the one or more that was recited in claim 42.

### **Pending Claims**

In the Office Action summary, the Examiner notes that, among other claims, claims 29-35 are pending and that claims 42-47 are withdrawn from consideration. However, the Examiner gives no reason why claims 42-47 are withdrawn from consideration. Furthermore, the Examiner presents rejections and analysis for claims 42-47 in the Detailed Action portion of the Office Action. As a result, it is unclear which claims the Examiner considers to be pending.

In the previous Office Action, Applicants canceled claims 29-35 and added new claims 42-47 to replace canceled claims 29-35. Applicants consider these amendments to have been accepted. Otherwise, the Examiner would not have rejected and analyzed claims 42-47. Therefore, for purposes of this response to the current Office Action, Applicants have not addressed the Office Action analysis of claim 29-35, but have addressed the Office Action analysis of claims 42-47.

### **35 U.S.C. § 103(a) Obviousness Rejections**

Obviousness Rejection Based on U.S. Patent Publication No. 2007/0055762 to Bachner, III et al., in View of U.S. Patent No. 6,466,951 to Birkler et al.

Claims 1-11, 19, 21, 23 through 25, 36, 37, and 38 stand rejected under 35 U.S.C. §

103(a) as being unpatentable over Bachner, III et al. (U.S. Patent Publication No. 2007/0055762), in view of Birkler et al. (U.S. Patent No. 6,466,951). Since claims 36 through 38 have been canceled, Applicants treat this rejection as applying to claims 1 through 11, 19, 21, and 23 through 25. Applicants respectfully traverse this rejection, as hereinafter set forth.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, the Examiner must determine whether there is “an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-1741, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Further, rejections on obviousness grounds “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id* at 1741, quoting *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant’s disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

Regarding claim 1, the Office Action states that Bachner is silent regarding “automatically generating, by the at least one archival system, the command to delete the replicated data elements from the network using the opportunistic data transfer **when the replicated data elements are received by the at least one archival system while retaining the replicated data elements on the at least one archival system.**” The Office Action also states the Birkler discloses this element by referring to column 3, lines 40-55 and column 6, lines 19-21 of Birkler.

From the title, Birkler is a “DATA BASE SYNCHRONIZING SYSTEM WITH AT LEAST TWO HOST DATABASES AND A REMOTE DATABASE.” Consequently, it appears

to Applicants that Birkler seeks to ensure that data elements on the host computers match data elements on the handheld remote computer. In contrast, claim 1 seeks to move data elements from remote devices to an archival system, and then remove the data elements from the remote nodes, creating an unsynchronized state between the remote nodes and the archival system.

Applicants recognize that, in some cases, Birkler discusses deleting data elements. However, these deletions always appear to be presented in the context of synchronizing the state of data between the two computers. In other words, synchronization includes deleting data elements on the handheld device if they are deleted on the host device and deleting data elements on the host device if they are deleted on the handheld device.

It also appears to Applicants that Birkler provides for deleting data elements on the handheld device while retaining the data elements on the host computers. However, Applicants assert that Birkler performs this partial deletion in a very different method than what is recited in claim 1, and for a different reason. In Birkler, two kinds of deletes are performed, hard deletes and soft deletes.

With respect to hard deletes, Birkler states: “Hard delete is used by the synchronization engine to delete such items in the remote database 224, that have been deleted from the host database 204 or 214.” (Column 6, lines 23-25). In other words, the hard deletes send a command from the host database to delete the data in the remote device when the data is deleted from the host device. Clearly, this is different from claim 1, which recites, “automatically generating, by the at least one archival system, the command to delete the replicated data elements from the network ... **while retaining the replicated data elements on the at least one archival system.**” In other words, claim 1 keeps the data on the archival system and deletes the data from the remote devices, thus creating an unsynchronized state that would be contrary to the purpose and teachings of the Birkler reference.

With respect to soft deletes, Birkler states: “Soft delete is used by the synchronization engine to delete items in the remote database 224 in order to make room for new items therein.” (Column 6, lines 20-22). The synchronization engine resides in the host computers (*See* Col. 4, lines 53-56 and FIG. 2), and the soft delete commands are in response to a host computer wanting to add items to the remote device. In other words, the synchronization process wants to add an item to the remote device and there is no room in the remote device. As a result, the host computer performs a soft delete command so that there will be room in the remote device for

new items from the synchronization process. This process is clear from examining FIG. 3 and item 401 (remote DB 224 full?), item 402 (delete item stored in remote DB 224 with soft delete command), and item 404 (write item in remote DB 224). In other words, when performing a synchronization process, if the remote database is full, an item is deleted from the remote database, then a new item is added to the remote database.

In contrast, claim 1 recites “automatically generating ... the command to delete the replicated data elements from the network ... **when the replicated data elements are received by the at least one archival system.**” In other words, in claim 1 the data elements originate in the remote devices and are transferred **to** the archival system. Whereas, in Birkler the data is moved **from** the host database to the remote database.

Furthermore, in claim 1, the deletion occurs in response to the data item being received at the archival system. Whereas, in Birkler, the deletion occurs because data needs to be transferred from the host database to the remote database and there is not enough room in the remote database.

As discussed above, the Office Action states that Bachner does not teach or suggest deleting data elements after the replication. Furthermore, Applicants assert that neither of Birkler’s hard deletes or soft deletes teach or suggest, “automatically generating ... the command to delete the replicated data elements from the network ... when the replicated data elements are received by the at least one archival system while retaining the replicated data elements on the at least one archival system,” as recited in claim 1. In fact, Birkler’s hard delete teaches away from this deletion process recited in claim 1 since it would create an unsynchronized state between the host computer (archival system) and the handheld remote computer (other communication nodes).

Consequently, Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of claim 1 be withdrawn because the references Bachner and Birkler, alone or combined, do not teach or suggest all the claim limitations recited in claim 1.

Regarding claims 2-11, these claims depend from claim 1, which is allowable. Therefore, at least by virtue of their dependence from an allowable claim, claims 2-11 are allowable and Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of these claims be withdrawn.

Regarding claim 19, this claim includes subject matter similar to that of claim 1. Namely, claim 19 includes “the at least one archival system **retains the replicated data elements** and generates a command to delete the replicated data elements from all other communication nodes ... **when the replicated data elements are received by the at least one archival system.**” As a result, the analysis present above with respect to claim 1 is equally applicable to claim 19. Therefore, Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of claim 19 be withdrawn.

Regarding claims 21 and 23-25, these claims depend from claim 19, which is allowable. Therefore, at least by virtue of their dependence from an allowable claim, claims 21 and 23-25 are allowable and Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of these claims be withdrawn.

Regarding claim 36, 37, and 38, the Office Action states that these claims have been rejected under 35 U.S.C. § 103 with respect to Bachner in view of Birkler. However, these claims were previously canceled.

Obviousness Rejection Based on U.S. Patent Publication No. 2007/0055762 to Bachner, III et al., in View of U.S. Patent No. 6,466,951 to Birkler et al., in Further View of U.S. Patent Publication No. 2004/0179511 to Kizu et al.

Claims 12 through 18, 26 through 28, 34, 35, 39, 40, and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bachner, III et al. (U.S. Patent Publication No. 2007/0055762), in view of Birkler et al. (U.S. Patent No. 6,466,951), and further in view of Kizu et al. (U.S. Patent Publication No. 2004/0179511). Applicants respectfully traverse this rejection, as hereinafter set forth.

Regarding claims 12-18, these claims depend from claim 1, which is allowable. Therefore, at least by virtue of their dependence from an allowable claim, claims 12-18 are allowable and Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of these claims be withdrawn.

Regarding claims 26-28, these claims depend from claim 19, which is allowable. Therefore, at least by virtue of their dependence from an allowable claim, claims 26-28 are allowable and Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of these claims be withdrawn.

Claims 34 and 35 are canceled herein.

Regarding claim 39, 40, and 41, the Office Action states that these claims have been rejected under 35 U.S.C. § 103 with respect to Bachner in view of Birkler and Kizu. However, these claims were previously canceled.

Obviousness Rejection Based on U.S. Patent Publication No. 2007/0055762 to Bachner, III et al., in View of Chiang et al. “Routing and Multicast in Multihop, Mobile Wireless Networks,” 1997, pages 1-6

Claims 29 through 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bachner, III et al. (U.S. Patent Publication No. 2007/0055762), in view of Chiang et al. (“Routing and Multicast in Multihop, Mobile Wireless Networks,” 1997, pages 1-6). Applicants respectfully traverse this rejection, as hereinafter set forth.

Claims 29-35 are canceled herein.

Obviousness Rejection Based on U.S. Patent No. 6,466,951 to Birkler et al., in View of Chiang et al. “Routing in Clustered Multihop, Mobile Wireless Networks with Fading Channel,” 1997, pages 1-15

Claims 42 through 47 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Birkler et al. (U.S. Patent No. 6,466,951), in view of Chiang et al. (“Routing in Clustered Multihop, Mobile Wireless Networks With Fading Channel”, 1997, pages 1-15). Applicants respectfully traverse this rejection, as hereinafter set forth.

Regarding claim 42, this claim includes the element “generating, at the archival node, a delete command for the data elements when the data elements have been successfully received at the archival node.” In the Office Action, the Examiner states that this element is taught by Birkler and states “upon synchronizing, the apparatus could sent the delete command, refer to Col 6, Lines 5-30).”

Applicants respectfully disagree. Applicants assert that the analysis presented above with respect to Birkler and claim 1 is equally applicable to Birkler and claim 42. Namely, in claim 42 data elements are being sent **to** archival system, whereas in Birkler’s soft delete, data elements are being sent **from** the host system. In addition, in claim 42 the delete command is sent when the data elements being received at the archival system, whereas in Birkler’s soft delete, the delete command is sent so that additional data may be stored on the remote device.

Furthermore, Applicants can find no description in Chiang et al. to deleting data elements “when the data elements have been successfully received at the archival node,” as recited in



claim 42. Therefore, Applicants assert that the references of Birkler and Chiang, either individually or combined, do not teach or suggest the element of “generating, at the archival node, a delete command for the data elements when the data elements have been successfully received at the archival node,” as recited in claim 42. As a result, Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of claim 42 be withdrawn.

Regarding claims 43-47, these claims depend from claim 42, which is allowable. Therefore, at least by virtue of their dependence from an allowable claim, claims 43-47 are allowable and Applicants respectfully request that the 35 U.S.C. § 103 obviousness rejection of these claims be withdrawn.

**CONCLUSION**

Claims 1 through 19, 21, 23 through 28, and 42 through 47 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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